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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/437,171 11/09/99 KRAJNIK

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EXAMINER

REDDICK, M

ART UNIT

PAPER NUMBER

1713

DATE MAILED:

04/25/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

# Office Action Summary

Application No.

09/437,171

Applicant(s)

KRAJNIK ET AL.

Examiner

Judy M. Reddick

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1713

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 12 January 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 18) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other:

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**DETAILED ACTION**

**Information Disclosure Statement**

1. ***The IDS filed on 01/12/01 has been considered and placed in the file.***

**Claim Rejections - 35 USC § 102**

2. ***The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:***

***A person shall be entitled to a patent unless –***

3. ***The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:***

***(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.***

4. ***Claim 1 is rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over EP 811,663(Schall et al).***

***Schall et al disclose a storage-stable aqueous composition defined basically as containing a blend of 1) an anionically stabilized polymer binder and 2) a polyfunctional amine polymer wherein, said polymer binder 1) is derived from ethylenically unsaturated monomer having latent x-linking functionality and includes diacetone acrylamide, (meth)acrolein, etc.(see page 4, lines 14-25) and said amine polymer 2) is derived from a) at least one amine-containing monomer which includes those having latent cross-linking functionality and includes oxazolidine***

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*moiety-governed monomers and b) at least one acid-containing monomer.*

*See the paragraph bridging pages 5-6 and page 6, lined 1-49. Another*

*amine polymer 2) includes a polymer of an*

*acetoacetoxylethylmethacrylate and (meth)acrylic acid reacted with*

*diethylaminoethylpropyl amine(see page 7, lines 52-55). Schall et al*

*therefore anticipate the instantly claimed invention with the*

*understanding that components 1) and 2) of Schall et al overlap in scope*

*with the instant components (a) and (b), as claimed.*

*(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.*

5. *Claim 1 is rejected under 35 U.S.C. 102(a) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over EP 875,540(Verge et al) or EP 875,542(Verge et al).*

*Each of Verge et al(EP'540 and EP'542) disclose a mixture of two particle dispersions (A) + (B) wherein, each of (A) and (B) are obtained by aqueous emulsion polymerization of a monomer composition which includes at least one monomer which has latent cross-linking functionality such as (meth)acrolein and comfortably overlaps in scope with components (a) and (b), as claimed. Each of Verge et al(EP'540 and EP'542) therefore anticipate the instantly claimed invention. See, e.g., the Abstract, page 4, lines 24-57 and page 5, lines 1-56 of Verge et al(EP'540) and the Abstract, page 1, lines 36-56, page 2, lines 1-57 and page 3, lines 1-16 of Verge et al(EP'542).*

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6. *The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:*

*(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.*

1. *The factual inquiries set forth in Graham v. John Deere Co., 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:*

- 1. Determining the scope and contents of the prior art.*
- 2. Ascertaining the differences between the prior art and the claims at issue.*
- 3. Resolving the level of ordinary skill in the pertinent art.*
- 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.*

7. *Claims 1-5, 8-11 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over International WO 98/52,980(Collins et al).*

*Collins et al disclose water-based latexes defined basically as containing I) about 5 to about 50 wt.%, based on dry resin, of an amino-functional polymer and II) about 50 to 95 wt.%, based on dry resin, of a pendant functional polymer wherein the amino-functional polymer I) is derived from 1) 1 to 40 wt.% of an acetoacetoxy-functional monomer, 2) 0.5 to 20 wt.% of a surface-active vinyl monomer, 3) 60 to 90 wt.% of a non-acid vinyl monomer which includes methyl methacrylate, glycidyl methacrylate, hydroxy-group-containing (meth)acrylates, fatty acid vinyl esters such as VEOVA 5, 9, 10 and 11, 4) other vinyl monomers such as*

*acid and nitrogen-containing monomers and 5) surface-active vinyl monomers, viz., those which clearly meet the macromonomer per the instant claims and the pendant-functional polymer II) includes copolymers derived from a) pendant-functional monomers and b) other vinyl comonomers which include the aforementioned non-acid vinyl monomers. Collins et al therefore anticipate the instantly claimed invention with the understanding that components I) and II) clearly overlap in scope with the components (a) and (b), as claimed. The function of either polymer I) or II) as a thickener or dispersant is tenable since the polymers are made in essentially the same manner and under essentially the same conditions as the claimed polymers (a) and (b). See the Abstract and pages 4-12, in their entirety.*

**Claim Rejections - 35 USC § 103**

8. *The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:*

*(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.*

9. *Claims 6, 7, 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over International WO 52,980(Collins et al) in combination with Jakob et al(U.S. 5,889,107).*

*Collins et al as already discussed supra and as applied to claims 1-5, 8-11 and 14. Further, the disclosure of Collins et al differs basically from*

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***the claimed invention as per the non-express recognition of an embodiment directed to the use of the specifically defined carbonyl group-containing monomer(s) in formulating the polymers (a) and/or (b) per the instant claims.***

***Jakob et al disclose vinyl ester polymer dispersions obtained via emulsion polymerization of a) at least one vinyl ester monomer which includes fatty acid vinyl esters in combination with b) other copolymerizable ethylenically unsaturated monomers which include alpha, beta-unsaturated acids(up to 25 wt.%), N-functional group-containing monomers(up to 10 wt.%), hydroxy functional monomers(up to 10 wt.%) and carbonyl group-containing monomers which include diacetone acrylamide, vinylacetoacetate, acetoacetoxyethyl (meth)acrylate, etc.(up to 10 wt.%). See cols. 5 and 6 of Jakob et al. However, based on their art-recognized scope equivalency as taught by Jakob in forming similar such vinyl polymers, one having ordinary skill in the art would have found it obvious to use the carbonyl group-containing monomer(s) of Jakob et al in lieu of the acetoacetoxy functional vinyl monomer of Collins et al and with a reasonable expectation of success.***

#### **Conclusion**

***10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. U.S. 4,176,103 to Cruden et al is cited of interest in teaching the use of carbonyl group-containing monomers in formulating vinyl polymer latexes and U.S. 5,179,158 to Azuma et al is cited as of interest in***

*teaching aqueous resin dispersions containing macromonomer-governed vinyl polymer aqueous dispersions, the two considered merely cumulative to the prior art supra.*

**11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Judy M. Reddick whose telephone number is (703)308-4346. The examiner can normally be reached on Monday-Friday, 6:30 a.m.-3:00 p.m..**

**If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on (703)308-2450. The fax phone numbers for the organization where this application or proceeding is assigned are (703)872-9310 for regular communications and (703)892-9311 for After Final communications.**

**Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)305-8183.**

*J. M. Reddick*  
**Judy M. Reddick  
Primary Examiner  
Art Unit 1713**

*JMR Jm*  
**April 19, 2001**